

REMARKS

Claims 1, 3-8, 10-13 and 15-17 are pending and under consideration. No new matter is presented in this Response.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 1, 6, and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Okada, U.S. Patent 5,286,965 in view of Kubota, U.S. Patent Publication 2002/0101800.

Claim 1

Claim 1 recites the feature of "wherein the predetermined critical period of time is set to a time for which the objective lens remains a minimum distance from the disc without damaging the disc when an actuator actuating a pickup, on which the objective lens is mounted, moves at an operational maximum speed." In rejecting claim 1, the Examiner stated at page 7 of the Office Action that "upon further consideration, the examiner has decided that the subject matter taught in Kubota is still applicable. The applicant contends that the reference teaches avoiding a collision of an objective lens with a storage medium, but does not teach details about the critical period of time. However, time is inherent. Thus, keeping the two elements apart inherently means that the two are kept apart for a given period of time, regardless of the speed of the actuator (emphasis added)."

It is respectfully submitted that the Examiner's reasoning is flawed for two reasons. First, the Examiner has impermissibly failed to show where the prior art discloses the recited element that a critical period of time is related to an operational maximum speed of an actuator, as recited by claim 1. The Examiner argues that "keeping the two elements apart inherently means that the two are kept apart for a given period of time, regardless of the speed of the actuator." It is a fundamental tenet of patent law that "to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP 2143.03. Here, claim 1 recites that a critical period of time is related to an operational maximum speed of an actuator. Instead of arguing that the prior art teaches or suggests this claimed limitation (as the Examiner is required to do according to MPEP 2143.03), the Examiner has stated that his rejection of claim 1 is based on the inherent proposition that "time is inherent...regardless of the

speed of the actuator.” The applicants, however, are not simply claiming that the critical period of time is a “given period of time,” as suggested by the Examiner. Instead, the applicants have specifically amended claim 1 to recite the feature that “the predetermined critical period of time is set to a time for which the objective lens remains a minimum distance from the disc without damaging the disc when an actuator actuating a pickup, on which the objective lens is mounted, moves at an operational maximum speed.” Thus, the Examiner is failing to show where the prior art discloses a recited feature of claim 1 in making this rejection.

To the extent that the Examiner is using an inherency argument to show this recited feature of claim 1, inherency arguments cannot be used as a substitute for the duty of an Examiner to show where the prior art teaches or suggest each recited limitation of a claim. Rather, inherency arguments allow Examiners to argue that certain elements of a claim are inherently taught by the prior art, for example, by arguing that a “previously unappreciated property of a prior art composition” inherently anticipates a recited element of a claim directed towards that property. MPEP 2112. In this case, however, the Examiner is not arguing that the prior art inherently teaches an operational maximum speed of an actuator, as recited by claim 1. Instead, the Examiner is vaguely suggesting that “time is inherent” and is disregarding that claim 1 recites the feature that the critical period of time is related to an operational maximum speed of an actuator, without providing any explanation as to how the prior art inherently anticipates this recited feature. Thus, the rejection of claim 1 should be withdrawn for at least this reason.

Second, Kubota does not inherently teach or suggest this recited element of claim 1. As noted in the Amendment filed July 16, 2007, the Examiner acknowledged in a telephone interview on May 17, 2007 that the last line of paragraph [0075] of Kubota did not refer to the same time period as the predetermined critical period of time recited by claim 1. “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.” MPEP 2112 (IV). For example, a “previously unappreciated property of a prior art composition” may inherently anticipate a recited element of a claim directed toward that property. MPEP 2112.

In this case, however, none of the references, either alone or in combination, teach or suggest that the critical period of time is related to an operational maximum speed of an actuator, as recited in claim 1. In the Office Action, the Examiner argues that Kubota inherently teaches this recited feature of claim 1 because “time is inherent...thus, keeping the two

elements apart inherently means that the two are kept apart for a given period of time, regardless of the speed of the actuator." It is respectfully submitted that the characteristic of "a critical period of time" being related to "an operational maximum speed of an actuator," as recited by claim 1, does not necessarily flow from Kubota, and thus, is not inherently taught by Kubota. MPEP 2112 (IV).

By way of review, Kubota is directed towards a focusing servo pull-in apparatus by which a focusing servo can be pulled in a recording surface without accompanying a collision of an objective lens with a storage medium or a supporting base of a focusing actuator even in a case where such a storage medium exhibiting a higher amount of surface vibration thereof than a thickness of a substrate layer thereof is used. Kubota, par. [0015]. Kubota discloses an objective lens retreating control circuit 14 which outputs an objective lens retreating control signal after an initialization signal is input from a condition judging circuit 17. Kubota, par. [0064]. The condition judging circuit 17 outputs the initialization signal based on "formula 2," which is expressed as:

Absolute value of intensity signal of reflected light $>\alpha_2$, and absolute value of tracking error signal $>\beta_2$, where α_2 and β_2 are positive real numbers. Kubota, par. [0046].

As taught by Kubota, when the intensity signal of reflected light is $>\alpha_2$ and the absolute value of a tracking error signal is $>\beta_2$, the condition judging circuit 17 "judges to the effect that abnormal approach appears between the objective lens 4 and the optical disk 1, so that the condition judging circuit 17 outputs an initialization signal to the objective lens retreating control circuit 14...thus, an objective lens retreating control signal is applied to the focusing actuator 5, whereby a collision of the objective lens 4 with the optical disk 1 is avoided." Kubota, par. [0075].

Kubota does not explicitly or implicitly teach, suggest, or otherwise inherently disclose anything about formula 2 involving a "critical period of time" or an "operational maximum speed" of an actuator, as recited by claim 1. Instead, formula 2 of Kubota is based solely on two variables: the intensity of reflected light and the value of a tracking error signal. Formula 2 does not use the variable of whether a predetermined critical period of time has elapsed, and formula 2 does not use the variable of an operational maximum speed of an actuator. Instead, Kubota suggests that formula 2 is used such that the moment when the intensity of reflected light is $>\alpha_2$

and the value of the tracking error signal is $>\beta_2$, the condition judging circuit 17 sends an initialization signal to reverse the direction of the objective lens 4.

In contrast, claim 1 recites that "the predetermined critical period of time is set to a time for which the objective lens remains a minimum distance from the disc without damaging the disc when an actuator actuating a pickup, on which the objective lens is mounted, moves at an operational maximum speed." Thus, as the operational maximum speed of the actuator increases, the predetermined critical period of time decreases. However, since Kubota teaches moving an objective lens away from a disc the moment when the intensity of reflected light is $>\alpha_2$ and the value of the tracking error signal is $>\beta_2$, it makes no sense to apply Kubota to the invention recited by claim 1. If the invention disclosed by Kubota were used with the invention recited by claim 1, Kubota would be set to have an instantaneous predetermined critical period of time, and thus, Kubota would only apply to actuators having an infinite operational maximum speed. Since actuators cannot move infinitely fast, the time period relied upon in Kubota does not inherently apply to the invention recited by claim 1.

Thus, Kubota teaches a completely different method to prevent collisions between an objective lens and a disc than the method recited by claim 1 of the instant application. As such, the Examiner has not provided a basis in fact and/or technical reasoning to reasonably support an inherency rejection of claim 1 based on the cited prior art. Specifically, the Examiner has not provided a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic of "a critical period of time" being related to an "operational maximum speed" of an actuator, as recited by claim 1, necessarily flows from the teaching of Kubota. MPEP 2112 (IV). Accordingly, it is respectfully submitted that the rejection of claim 1 should be withdrawn for at least this reason as well.

Claims 6 and 13

Claims 6 and 13 each recite substantially the same feature as the feature recited by claim 1 and discussed above. Accordingly, it is respectfully submitted that the rejections of claims 6 and 13 should be withdrawn for at least the same reasons that the rejection of claim 1 should be withdrawn.

Claims 3-5, 7-8, 10-12, and 15-17

Claims 3-5, 7-8, 10-12, and 15-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Okada in view of Kubota, further in view of Matsuda et al., U.S. Patent

6,256,273.

Claims 3-5 depend on claim 1, claims 7-8 and 10-12 depend on claim 6, and claims 15-17 depend on claim 13. Accordingly, it is respectfully submitted that the rejections of claims 3-5, 7-8, 10-12, and 15-17 should be withdrawn for at least the same reasons that the rejections of claim 1 should be withdrawn.

Based on the foregoing, this rejection is respectfully requested to be withdrawn.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

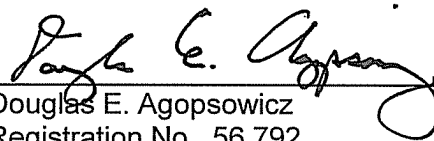
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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